



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/489,681	01/24/2000	Branko Kovacevic	0100.9901420	6134
34456	7590	02/04/2005	EXAMINER	
TOLER & LARSON & ABEL L.L.P. 5000 PLAZA ON THE LAKE STE 265 AUSTIN, TX 78746			PHAN, MAN U	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/489,681	Applicant(s) KOVACEVIC ET AL.	
	Examiner Man Phan	Art Unit 2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-37 and 39 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-18 and 30-34 is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 9, 11-15, 19-25, 28, 29, 35, 36 and 39 is/are rejected.
- 7) ☒ Claim(s) 7, 26, 27 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to applicant's 06/04/2004 Amendment in the application of Kovacevic et al. for a "Method for displaying data" filed 01/24/2000. This application is a Request for Continued Examination (RCE) under 37 C.F.R. 1.114 filed on October 05, 2004. The proposed amendment to the claims and response have been entered and made of record. Claims 31, 33 have been amended. Claims 1-9 and 11-37, 39 are pending in the present application.

The rejection of record with respect to claim 31 under 35 U.S.C. ' 112, second paragraph are hereby removed based on applicant's amendment.

Claim Objections

2. Claim 7 is objected to because of the following informalities: "determining a using the new packet identifier" should read –determining the new packet identifier– (line 4 for claim 7). Appropriate correction is required.

Claim Rejections - 35 USC ' 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 1038 and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-4, 6, 9 and 21-24, 27-29 and 35, 36, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto (US#6,414,954) in view of Teichmer (US#6,380,991).

With respect to claims 1, 21, 35 and 39, both Miyamoto and Teichmer disclose a transport demultiplexor hardware for demultiplexing an MPEG-2 compliant transport stream in according to the essential features of claim 1; the method comprising the steps of: determining a new packet identifier (PID) in response to the splice indicators. In other words, when a splicing point is detected between group of packets, a new PID is generated to replace the present PID value with the next PID value (Fig. 2; Col. 2, lines 41-55). Miyamoto also discloses in Fig. 2 a picture processing system in which The register block 13 includes a present video PID register

Art Unit: 2665

15 for storing a present video PID value, a next video PID register 18 for storing a next video PID value, a present audio PID register 16 for storing a present audio PID value, and a next audio PID register 19 for storing a next audio PID value. The host CPU 11 sets the next PID value in each of the next PID registers 18 and 19, which loads the present PID registers 15 and 16, respectively, with the next PIDs after the next PIDs become the present PIDs (*determining a new packet identifier PID*). The TS header processor 17 detects the splicing point to output a PID switching signal, replacing the present PID value with the next PID value (*detecting the splice indicators*). When a splicing point is detected between groups of packets, a PID switch signal is generated to replace the present PID value with the next PID value (*using the new Packet Identifier in response to the second splice indicator*) (Col. 3; lines 10 plus). In the same field of endeavor, Teichmer discloses a method of splicing video in MPEG-2 transport streams comprising the steps of identifying a first splice point at an anchor frame in a first video stream, and identifying a second splice point at an anchor frame in a second video stream (*determining a new packet identifier in response to detecting the first splice indicator*)(Col. 1, lines 33-40).

Regarding claims 2-4, 22-24 and 36-37, Miyamoto further teaches in Fig. 2 illustrated a block diagram of a picture processing system, includes loading the new PID into a shadow register (next register) after the step of determining and before the step of loading; and the step of using the new PID further comprises loading the contents of the shadow register into a main register, or using the shadow register as the main register (Col. 3, lines 19-34). It's noted that, in the broadcasting, a splice occurs when material from one source is followed without interruption by material from another source. One place where splicing occurs is when a local affiliate of a network inserts local material such as local news or a local commercial into a program from the

network. At the beginning of the local material, the local affiliate splices the local material to the broadcast at the point where the network material contains a pause for the local material; at the end of the local material, the affiliate splices the resumption of the broadcast to the end of the local commercial. The Society of Motion Picture and Television Engineers (SMPTE) apparently thought that the ISO MPEG-2 standard was inadequate with respect to splicing. They promulgated their own SMPTE Standard 312M, entitled "Splice Points for MPEG-2 Transport Streams," incorporated herein by reference. The SMPTE standard defines constraints on the encoding of and syntax for MPEG-2 transport streams such that they may be spliced without modifying the packetized elementary stream (PES) packet payload. The SMPTE standard includes some constraints applicable to both seamless and non-seamless splicing, and other constraints that are applicable only to seamless splicing.

Regarding claims 6 and 28, Miyamoto further teaches the step of detecting the splice indicators includes the sub step of generating the splice interrupts, and the step of determining a new PID occurs in response to the splice interrupts (Col. 1, line 52 to Col. 2, line 11).

Regarding claims 8-9 and 28-29, Teichmer further teaches a method for splicing MPEG-2 transport streams based upon locally available data, in which the first and second splice indicator represent different occurrences of a common event, wherein the common event is the assertion of a splice point (Col. 1, lines 37-46).

One skilled in the art would have recognized the need for effectively and efficiently splicing MPEG-2 transport streams using transport packet demultiplexer hardware, and would have applied Teichmer's teaching of the identifying splicing points in a video transport stream into Miyamoto's novel use of a picture processing for processing a transport stream. Therefore,

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Teichmer's method for splicing MPEG-2 transport streams into Miyamoto's picture processing system and method with the motivation being to provide a method for displaying data in an MPEG-2 video stream.

6. Claims 5, 11-15, 19-20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto (US#6,414,954) in view of Teichmer (US#6,380,991) as applied to the claim 1 above, and further in view of Chen et al. (US#5,917,830).

With respect to claims 5 and 25, Miyamoto and Teichmer disclose a transport demultiplexor hardware for demultiplexing an MPEG-2 compliant transport stream as described in paragraph 8 above. Miyamoto and Teichmer do not disclose the step of detecting the splice indicator using an adaptation field parser portion of the transport packet demultiplexer hardware. In the same field of endeavor, Chen et al. (US#5,917,830) discloses a method for splicing a secondary packetized data stream with a primary packetized data stream, in which the splice point data includes the splice-related adaptation field data illustrated in Figs. 7a-d. (Col. 17, lines 26-40).

Regarding claims 11-15, Miyamoto teaches in Fig. 3 a block diagram of the TS header processor shown in Fig. 2, in which the TS header analyzer 20 compares the PID of each TS packet in the input transport stream TS with the present video/audio PID value which is set based on the menu information in the transport stream input to the CPU 11 beforehand, and then outputs to the TS header stripper 21 a TS packet having a PID which coincides with the video/audio PID value set in the respective present PID registers 15 and 16. The TS header

analyzer 20 analyzes the count of the video/audio splice count-down signal of the TS packet to be supplied to the TS header stripper 21, if the present TS packet includes the video/audio splice count-down signal. The count of the splice count-down signal indicates the status of the present TS packet: a count "0" indicates that the present TS ok packet is the last one of a group of packets, a count "5" indicates that the present TS packet is followed by other five TS packets in the same group. In general, a negative value is also used for the count of the splice count-down signal; however, the negative value is not utilized in the present embodiment (Col. 4, lines 18 plus). Chen further teaches using the new PID in response to the second splice indicator wherein the second splice state is based upon a second splice countdown value parsed by the transport packet demultiplexer (Col. 22, lines 8 plus).

Regarding claim 19, Chen further teaches using the new PID in response to the second splice indicator when the new PID is associated with a first program type (Col. 22, lines 8-31).

Regarding claim 20, Chen teaches the splicing compressed packetized digital video stream wherein the first program type is mutually exclusive from a second program type, and the second program type is commercials (See the Abstract).

One skilled in the art would have recognized the need for effectively and efficiently splicing MPEG-2 transport streams using transport packet demultiplexer hardware, and would have applied Chen's detecting the splice indicator using an adaptation field parser, and Teichmer's teaching of the identifying splicing points in a video transport stream into Miyamoto's novel use of a picture processing for processing a transport stream. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Chen's splicing compressed packetized digital video streams, and Teichmer's method for splicing

Art Unit: 2665

MPEG-2 transport streams into Miyamoto's picture processing system and method with the motivation being to provide a method for displaying data in an MPEG-2 video stream.

Allowable Subject Matter

7. Claims 16-18 and 30-34 are allowable.

8. Claims 7, 26, 27, 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is an examiner's statement of reasons for the indication of allowable subject matter: The prior art of record fails to disclose or suggest the step of detecting a third splice indicator using transport packet demultiplexer hardware, requesting acquisition of a current program management table in response to the third splice indicator; requesting acquisition of a current program management when, in response to detecting the third splice indicator, it is determined that a third splice state has been countered, wherein the third splice state is based upon a third splice countdown value parsed by the transport packet demultiplexer hardware, and includes the first splice countdown value being a negative value, as specifically recited in the claims. The prior art also fails to disclose or suggest the steps wherein detecting the second/first splice indicator includes generating a second/first splice interrupt based upon the

Art Unit: 2665

second/first splice indicator; and determining the new packet identifier occurs in response to the second/first splice interrupt, as specifically recited in claims 7, 26, 37.

10. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Andersson et al. (US#2002/0041628) discloses a method and apparatus for splicing.

Birch (US#20022/0154694) discloses a bit stream splicer with variable rate output.

Egawa et al. (US#5,534,944) discloses a method of splicing MPEG encoded video.

Perkins et al. (US#5,859,660) discloses a non-seamless splicing of audio video transport.

Boice et al. (US#6,269,120) discloses a method of precise buffer management for MPEG video splicing.

Radha et al. (US#6,806,909) discloses a seamless splicing of MPEG-2 multimedia data.

Ward et al. (US#6,785,289) discloses a method and apparatus for aligning sub-stream splice points in a information stream.

Burns et al. (US#6,760,377) discloses a signal processing.

Art Unit: 2665

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3988.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

13. *Any response to this action should be mailed to:*

Commissioner of Patents and Trademarks

Washington, D.C. 20231

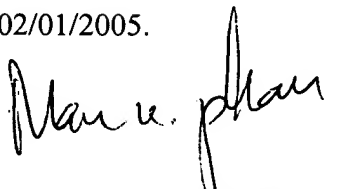
or faxed to: (703) 872-9314, (for formal communications intended for entry)

Or: (703) 305-3988 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Mphan

02/01/2005.


MAN U. PHAN
PRIMARY EXAMINER